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*PART 3:*  
*RECOMMENDATIONS*  
*AND*  
*CONCLUSIONS*



## ***Program Data***

Throughout its proceedings, and running as a theme through this report, the Task Force constantly came up against data limitations. The available data are simply not adequate to permit proper empirical analysis of the various government programs that affect capacity in the fishing industry. The Task Force recommends that when legislation establishes or funds programs affecting the fishing industry, part of the mandate and budget authorization shall place proper emphasis on the generation of adequate data to permit the quantitative evaluation of the capacity and subsidy effects of the programs.

## ***Concepts of Capacity and Capitalization***

The concepts of capacity and capacity utilization are often difficult to define and even more difficult to measure. In general, these concepts are short-run in nature, but in the case of fisheries, it is essential to consider the concepts relative to a long-run optimum level of production and input usage. Because of the special needs of fisheries, we recommend adopting the primal and economic definitions of capacity offered in this chapter: (1) the maximum potential output that can be produced given no limitations on the availability of the variable factors of production; (2) the output level corresponding to an underlying economic optimum (e.g., profit maximization or cost minimization). Adoption of the above definitions offers sufficient flexibility to develop practical measures of capacity and capacity utilization subject to most of the data typically available on fisheries.

Capacity utilization should be defined and measured two ways: (1) the ratio of observed

output to capacity output; and (2) the ratio of technically efficient output to capacity output. The two ratios may be based on either the production orientation or the economic orientation of capacity output. The two measures allow an assessment of the potential reasons why vessels do not produce at full capacity (e.g., technical efficiency vs. resource constraints). The second definition also yields an unbiased measure of CU relative to the capacity level of production (Färe et al. 1989).

We also recommend that any empirical analysis of capacity and capacity utilization incorporate the fishing activities of recreational anglers. Although it may be extremely difficult to develop measures of capacity for the recreational sector, the catch of the recreational sector, nevertheless, needs to be considered when developing measures of capacity for any fishery. Unfortunately, there does not appear to be an easy or acceptable approach for developing capacity measures for the recreational sector; we thus recommend that research is needed on the important issue of measuring capacity and capacity utilization in fisheries involving commercial and recreational components. We also recommend the following: (1) public funding be allocated to improve statistics on recreational catch, effort, and expenditures by anglers; (2) implementation of educational programs to make anglers aware of fisheries regulations; (3) enhanced enforcement of recreational fishery regulations; and (4) promotion of methods that would reduce incidental fishing mortality.

Given the data typically available on U.S. fisheries, it is unlikely that the economic measure of capacity can be estimated for many fisheries. It is, therefore, likely that most initial assessments of capacity will have to be based on the primal or production oriented definition of capacity.

Relative to empirical approaches for determining capacity, we offer that the empirical approach will be determined by the available data. The peak-to-peak and DEA approaches offer extremely useful approaches for assessing capacity and capacity utilization in fisheries when data are limited. The stochastic frontier is another approach for single species fisheries, or multiple species fisheries in which the catch of different species can be aggregated. We also conclude that measures of capacity will probably have to be developed from both an input and output orientation. Fishery managers desire measures of capacity in terms of standardized input bundles (e.g., a 100 ton, 125 foot, 1500 horsepower vessel has a capacity value of 1.25). This latter concern is critical for capacity reduction programs in which the intent of resource managers is to reduce the overall fishing capacity of a fleet.

## ***Habitat and Ecosystems***

Many U.S. fisheries face excess capacity problems that have been aggravated by declining fish stocks, and widespread concern exists that the situation will become worse before it gets better. Three cases were provided in this section to illustrate two key findings. First, the federal government has contributed to the decline in key fish habitats over many years. Second, the federal government has recognized its role and is making important and necessary contributions that must be sustained and expanded to maintain a national commitment to sustainable fisheries.

Large expenditures continue to be made in the Pacific Northwest to mitigate human sources of salmon habitat degradation, and large expenditures are under way to mitigate human influences on our coastal wetlands, including but certainly not limited to the

valuable Mississippi delta and the Florida Everglades. Much of this funding is coming from federal sources to offset previous federal assistance in developing economic activities and to pay for species protection. These activities have been described briefly in this section to illustrate two roles played by the federal government. First, in the Pacific salmon fisheries, much of the excess fishing capacity has been caused by decline in fish populations due, in large part, to human economic development aided and abetted by the federal government. Likewise, both past and expected future negative impacts on Gulf of Mexico shrimp fisheries can be linked to federal efforts to allow the people of the United States make good use of the Mississippi River basin and to assist in agricultural development and human settlements in Florida. Second, if the large investments in salmon habitat protection and wetland restoration are successful, the socially optimal fishing fleets of the future can be larger than can be sustained in the absence of habitat protection and restoration.

The Task Force anticipates that the regional fishery management councils will diligently examine federal policies that degrade fish habitats. The role of the federal government in habitat loss, intended or unintended, has been an unfortunate but significant role in creating excess capacity. In other sections of this report, the excess capacity arose from encouraging fleet expansion. This section suggests that actions directly reducing fish populations through habitat degradation also contribute to “too many fishermen chasing too few fish.”

Recent initiatives in habitat restoration, in the case studies discussed in this section and in many other instances, must be continued to help the valuable fish resources of the United States that fishing fleets (i.e., capital) depend upon. However, the case studies examined by the Task Force are not very encouraging.

Measures to protect salmon habitats on the Pacific coast are heavily resisted by people concerned about reducing river transportation, the possible increases in energy costs, and restrictions on economic development and residential construction for a steadily growing human population. Intervention in southern Louisiana can offset only some of the habitat loss, given the need to maintain water-borne transportation from Mississippi River ports and the Gulf of Mexico and to allow additional economic development and settlement patterns in Louisiana. The substantial efforts to improve valuable coastal habitats in Florida must address continuing high levels of agricultural production north of the remaining area of the Everglades as well as large increases in human populations.

Consequently, vigilance in anticipating activities that may degrade fishery habitats, concerted effort to mitigate past damages and restore at least part of lost and damaged habitat, and efforts to carefully match the capacity of fishing fleets to available resources, must all be undertaken together. It has proven very difficult, highly political, and very controversial to find a proper balance between the need for economic growth and the need for the environmental protection required to sustain economic growth in the long term. The Task Force notes with pleasure that the United States government has, in recent years, made strenuous efforts to correct the former imbalance between development and environmental protection.

### ***Capital Construction Fund***

Evaluating the issues involved in CCF was the most difficult part of the Task Force's deliberations. There was no broad-based, consensus recommendation developed by the Task Force. The predominant view of Task

Force members (14 of the 22 members) supported the following seven points. (Separate views stated by Task Force members are included in boxes.)

1. The Task Force concludes that the CCF program has contributed to capital investment in U.S. fisheries. It is, however, impossible to measure the impact of CCF with any precision because of a lack of adequate data. The Task Force recommends that any revised CCF legislation require a data gathering operation to permit the proper evaluation of the revised CCF program.
2. The Jones Act, by requiring the building and refurbishing of US fishing vessels in the U.S., imposes a negative subsidy on fisheries. In the interest of fairness to U.S. fishermen, positive subsidies to offset the negative subsidies are necessary. The CCF program should be modified to provide this offset, or a new program can be implemented to accomplish this purpose. Alternatively, the appropriate part of the Jones Act can be modified.
3. The SFA establishes the framework of current fisheries policy with an emphasis on conservation, and a mandate to limit fish catching capacity to levels consistent with the sustainability of the fish stocks. CCF should therefore no longer be permitted to finance the building, rebuilding, or refitting of fishery vessels, other than the offset described in recommendation # 2 above.
4. Fishing vessel owners have been placing money in CCF funds to finance the building, rebuilding, and refitting of fishing vessels. Since under # 3 above, such activities should no longer be possible with CCF funds, fairness requires that holders of CCF accounts be permitted to withdraw any portion of their CCF funds under favorable tax treatment, such as

the funds being taxed at the CCF account holder's current marginal rate. The withdrawal of funds under these conditions should be a one-time option, with Congress setting both a deadline for making the election and a cut-off date defining those funds which can be withdrawn under these favorable conditions.

5. In addition to the offset in # 2, CCF funds may be used for such purposes as fishing vessel safety upgrades, training, research, buyouts, ITQ purchases, IRA rollovers, and other projects that do not tend to increase capacity.

6. Congress should set a limitation on the maximum amount any firm or individual can accumulate in CCF funds.

7. In order to keep them from being recycled, funds received from a vessel buyback program should not be allowed to be deposited into a CCF account, except: 1.) in the case of a qualified, one-time withdrawal as allowed in # 4; or 2.) when the funds are rolled into an IRA as provided in # 5.

## ***Fisheries Vessel Obligation Guarantee Program***

Under the FOG program, the government has encouraged the construction, replacement, or reconstruction of fishing vessels by providing a guarantee to lenders that the government will assume any defaults on loans. In return, lending institutions have offered loans to fishermen with longer amortization periods than they otherwise would offer. A longer amortization period is attractive as a means of reducing risk from changing management regimes and fluctuations in the abundance of target species.

The principal argument for the

government's intervention has been that private commercial markets overestimate the risk associated with fishing and therefore set interest rates too high and amortization periods too short, when they offer loans to fishermen at all. As well, the relatively small number of fishing-related loans discouraged private lenders from maintaining staff who understood fisheries and could meaningfully evaluate a loan application.

Both program policy for FOG and external factors have altered the impact of FOG loan guarantees over the years. For instance, a principal purpose of the program initially was "to make U.S. built vessels as affordable as foreign-built vessels." This purpose reflected the relatively high interest rates of the period and the expressed desire of the government to expand and modernize the U.S. fishing fleet. The FOG program was created partly to counteract the impact of federal monetary policy on the fishing industry in 1974. As often is the case with such programs, the FOG program persisted long after the conditions that gave rise to it did.

In the 1970s, the government began imposing restrictions on loan activities. For instance, FOG financing was prohibited in seven fisheries that were declared "conditional." In 1996, this prohibition was extended administratively to financing new construction in any fishery or refurbishing existing vessels if the refurbishing would materially increase the vessel's harvesting capacity.

Other elements of Federal policy are among external factors influencing investment decisions, and, by extension, the impact of FOG. For instance, passage of the Magnuson Fishery Conservation and Management Act created the sense that U.S. fishermen would enjoy substantial increases in landings with the

exclusion of foreign fishermen. This encouraged private investment in expanding and modernizing some U.S. fishing fleets, leading to large increases in the number and size of fishing vessels in the late 1970s. Government policy aimed at Americanizing the pollock fishery led to a similar burst in fleet growth in the late 1980s.

More general government policy also influenced investment in fleets and, by extension, the relative impact of the FOG program. For instance, before the 1986 tax reform law, tax policy, including the investment tax credit, encouraged investment, particularly in capital intensive industries. Finally, such other factors as ex-vessel prices and imports have influenced investment in fishing vessels.

With passage of the SFA, government policy has moved from the development aims of the period 1950-1990 to sustainability as a principal focus of Federal fisheries policy. With the SFA, the renamed Fisheries Finance Program evolved further with the addition of two new activities: financing vessel buyback programs and financing the purchase of quota shares by crew-members and small boat fishermen in the Alaska halibut-sablefish fishery.

The Task Force came to several conclusions about the FOG/FFP program.

1. As a general rule, lack of private financing was not a limiting factor in expanding and modernizing fishing fleets. Rather, FOG provided a more favorable financial basis for doing so.
2. Together with investment tax law and such policies as the Americanization of fisheries within the U.S. fishery conservation zone, FOG has increased investment and fleet capacity.

3. FOG's impact has changed over time.
4. FOG's impact has been concentrated in a few regions and fisheries.
5. The main benefit of the program to a private interest is the longer term that risk-averse private bankers will not assume.
6. The focus of the FFP should carefully reflect the new direction of federal fisheries policy. At present, the prohibition on the use of FFP for vessel construction, or reconstruction that increases fishing capacity, should be maintained. The program should focus on activities that directly assist in the transition toward reduced fleets, as through vessel buyback programs and the establishment of rights-based management systems, or that reduce bycatch, improve gear selectivity or improve the safety of vessels.
7. Congress and NMFS should also establish a process to consider the future role of FOG in financing vessel construction and reconstruction. This should be done in consultation with the Regional Fishery Management Councils and the states, in order to assure that the future use of the program is consistent with regional conservation and management objectives. Any future use of FOG for these purposes should be limited to fisheries where excess capacity is not a problem, and where a lack of appropriate private financing is an important limiting factor in achieving a desired capacity level. The Task Force recommends that the use of FOG financing for vessel reconstruction in underutilized fisheries, especially in the Western Pacific, receive special consideration.<sup>17</sup> However, it was recognized by the Task Force that a number of instances exist in which government incentives to expand underutilized fisheries have led to overcapacity and resource depletion. Hence, a precautionary

approach is warranted. Potential leakage of FOG/FFP-financed vessels is also a problem. No measures currently exist to prevent the transfer of FOG financed vessels to fisheries where overcapacity is an issue; and such measures should be implemented within FFP.

## ***Buyback Programs***

1. Buyback programs have been created to respond to varying objectives and should be evaluated in terms of those objectives.

2. Requirements of business plans for the new industry-funded buyback programs make many useful contributions including careful consideration of objectives. However, to provide for successful implementation, several steps are needed by NMFS:

- a) promptly implement regulations for industry funded buyback programs;
- b) collect data and provide assistance in formulating business plans; and
- c) collect data needed to evaluate the success of the buyback programs.

3. The process of implementing effort limitation programs usually allows more participants than can sustainably pursue the fishery. This commonly creates a large amount of latent capacity. The existence of latent effort is a key problem in every buyback program. In many programs, many licenses removed were associated with operations that were not fully active participants, and, in several programs, so much latent effort remained that little impact on the excess capacity problem was observed. Buyback program designers should seek ways to reduce fully active and latent effort.

4. Fishing capacity reduction programs free capital, labor, and entrepreneurial talent from

fisheries experiencing overcapacity. Because many U.S. fisheries have excess capacity, reduction in one fishery can simply increase the excess capacity in another fishery. Because recent buyback programs have been part of disaster relief programs, they have also included programs for job training and non-fishing economic development in remote fishing communities. Some programs have also purchased fishing vessels and required that they be scrapped or otherwise prohibited from entering other fisheries. Any fishing capacity reduction program, including buyback programs and individual transferable quota programs, must be analyzed for this form of effort shift from fishery to fishery. On the other hand, the problem must be seen as a need to assist displaced workers in seeking other jobs and to identify new economic enterprises in communities that have become dependent on fisheries operated beyond their sustainable production. To avoid capacity reduction in any one fishery simply because problems exist in other fisheries is to try to escape responsibility for making a transition to sustainable fisheries.

## ***Wallop-Breaux***

The Wallop-Breaux program is a rare type of government activity in that it operates on a “user-pays” basis. The federal government plays a facilitating role in carrying out the program’s activities, but the funding is coming from somewhere else (the industry and the fishermen), and the expenditures are being made by someone else (state fish and wildlife agencies and others). The Wallop-Breaux program is a subsidy within the framework laid out in Chapter IV. But the Task Force noted that, as in many other cases, there would be many difficulties in trying to understand and quantify the potential subsidy effects of the program. From the standpoint of investments



in fisheries, the Task Force does not believe that the Wallop-Breaux program presents a serious matter of concern.

Nevertheless, from the perspective of current fishery policy analysis, recreational fisheries are extremely important. All over the country, anglers exert significant fishing mortality on some of our most valuable marine fish species; and in many instances the impacts of recreational fisheries on stocks is greater than commercial fisheries. So it is extremely important to understand the dynamics of how recreational fisheries operate, including the capital and fishing effort components.

Unfortunately, the analysis of recreational fisheries is late in coming and still inadequate. As the Task Force found out, even basic concepts of fishing capacity and what it means to recreational fisheries are not very well understood at all. (See discussion in Chapter III.) In particular, the Task Force was again concerned that recreational fisheries data, and program data about Wallop-Breaux, have not been collected and maintained in a manner to facilitate analysis of these fisheries and the programs that relate to them.

The Task Force recommends that NMFS and USFWS place greater emphasis on studies of recreational fisheries, including capital, capacity and fishing effort; and encourages state fish and wildlife agencies to use their Wallop-Breaux funds to study these matters as they are reflected within the states. The Task Force also recommends that the federal agencies emphasize improved statistics on recreational catch and effort, since the present program lacks the resources to provide reliable statistics for many fisheries.

## Other Programs

### Disaster Relief

The United States could approach the future use of fisheries disaster relief funds in a number of ways.

1. Use disaster relief funds for buyback programs. A buyback program can provide an economic incentive for fishermen to leave the industry which has the potential to reduce the levels of capacity the our nation's fisheries. These programs should be crafted with an understanding of latent capacity and include methods to prevent its influx back into fisheries once permits are retired, and shifting to other fisheries which themselves exhibit overcapacity.
2. Use disaster funds for economic diversification through job retraining. Job retraining can enhance the economic diversity of a fishing community by providing fishermen with other options to support themselves during poor fishing seasons. This is especially important in an uncertain and often cyclical industry like the fishing business.
3. Limit direct loan payments to fishermen. Direct loan payments can compound the problems facing the fishing industry by providing economic incentives for otherwise marginal businesses to stay active in the fishery.

These three policy options, if implemented, could greatly improve the status of the nation's commercial fisheries. Disaster relief funds can be allocated in a manner that provides fishermen with incentives to exit the fishery while at the same time not providing incentives to stay. This, coupled with a job retraining program, can vastly improve the sustainability

of our fishery resources through a reduction in fishing effort.

## Small Business Administration

Several policy options have been considered by the Federal Investment Task Force regarding SBA loan activity.

1. Do nothing. Allow the program to continue functioning in its current capacity.
2. Redirect the SBA loan activity that is provided to the fishing industry. Place restrictions on the use of SBA funds by not allowing loan proceeds to be used for new vessel purchase or for the acquisition of land for a processing site or for processing operations in general. Allow the funds to be used for only safety upgrades.
3. Eliminate the fishing sector as an SBA recipient

## Economic Development Administration

1. Do nothing. These programs do not significantly contribute capacity to the fishing industry.
2. Do not fund projects that do not decrease capacity. In the event that EDA funds are used for programs related to the fishing industry, these proceeds should fund projects that do not increase the capacity of the fishing sector.

## Farm Credit System

The Task Force recommends that FCS loan activity be limited to those projects that do not increase the capacity of the fishing fleet. This would restrict the loan funds for uses such as: debt refinancing, vessel safety upgrades, and aquaculture operations. Under no circumstances should FCS loan funds be used to construct new fishing vessels.

## Fisheries Development, Marketing and Promotion Programs

Federal investment in fisheries development, marketing and promotion programs have had a direct role in the build up of capital and capacity in U.S. fisheries. This impact, however, is impossible to quantify in any exact way. The Task Force recommends that the federal government limit the funding of such programs to be consistent with the conservation oriented national policy goals. In particular, priorities for S-K grant funding and other federal marketing, research, and development programs should be set to avoid exacerbating the current overcapacity problem now facing the nation's fisheries.

## Sea Grant

The Task Force recommends that the Sea Grant program continue in its current form. Because the program has not significantly contributed to fishing capacity, there is no basis for the Task Force to advocate changes to the Sea Grant program at this time.